What is claimed is:

1. A method of identifying the source of materials in a video sequence, comprising:

forming a series of pseudo frames from fields in adjacent frames;

calculating a correlation value for each of said pseudo frames;

determining scene changes; and

analyzing said correlation values and said scene changes to identify the source of each frame in said series.

2. The method of claim 1 wherein said forming a series of pseudo-frames includes interleaving each field with a field from a previous frame.

3. The method of claim 1 wherein said forming a series of pseudo-frames includes interleaving each field with a previous field.

4. The method of claim 1 wherein calculating a correlation value includes calculating a sum of absolute values of neighboring line differences according to the following formula:

$$SAD = \sum_{i=0}^{Y-2} \sum_{j=0}^{X-1} | P_{i,j} - P_{i+1,j} |$$

5. The method of claim 1 wherein said determining scene changes includes comparing a correlation value for one pseudo frame to a correlation value for an adjacent pseudo-frame multiplied by a constant.

6. The method of claim 5 wherein said adjacent pseudo-frame includes a previous pseudo-frame.

7. The method of claim 1 wherein said analyzing includes:

selecting a set of correlation values based on whether the frame represents a new scene, a continuation of a scene, or an end of a scene; and

comparing said selected set of correlation values to one another to identify the source of each frame in said series.

8. The method of claim 7 wherein said identification of the source of each frame includes transitioning a state machine through a series of states based on said comparison.

9. The method of claim 1 wherein said source information includes one of an interlaced field, the first field of a progressive frame, the second field of a progressive frame, the first field of a repeated field progressive frame, the second field of a repeated field progressive frame, and the third field of a repeated field progressive frame.

10. The method of claim 1 additionally comprising buffering in a delay buffer a plurality of frames prior to said forming.

11. The method of claim 10 additionally comprising outputting source information in synchronization with the output of frames from said delay buffer.

12. The method of claim 1 wherein said method is carried out in real time.

13. The method of claim 1 wherein said method is carried out off-line.

14. A method of identifying the source of materials in a video sequence, comprising:

forming a series of pseudo frames from fields in adjacent frames;

calculating a correlation value for each of said pseudo frames;

determining scene changes based on said correlation values;

identifying frames and repeated fields based on said correlation values and said scene changes; and

identifying the source of each frame in said series based on said identification of frames and repeated fields.

15. The method of claim 14 wherein said forming a series of pseudo-frames includes interleaving each field with a field from a previous frame.

16. The method of claim 14 wherein said forming a series of pseudo-frames includes interleaving each field with a previous field.

17. The method of claim 14 wherein said calculating a correlation value includes calculating a sum of absolute values of neighboring line differences according to the following formula:

$$SAD = \sum_{i=0}^{Y-2} \sum_{j=0}^{X-1} | P_{i,j} - P_{i+1,j} |$$

18. The method of claim 14 wherein said determining scene changes includes comparing a correlation value for one pseudo frame to a correlation value for an adjacent pseudo-frame multiplied by a constant.

19. The method of claim 18 wherein said adjacent pseudo-frame includes a previous pseudo-frame.

20. The method of claim 14 wherein said identification of frames and repeated fields includes:

selecting a set of correlation values based on whether the frame represents a new scene, a continuation of a scene, or an end of a scene; and

comparing said selected set of correlation values to one another to identify frames and repeated fields.

21. The method of claim 14 wherein said identification of the source of each frame includes transitioning a state machine through a series of states based on said frames and repeated fields.

22. The method of claim 14 wherein said source information includes one of an interlaced field, the first field of a progressive frame, the second field of a progressive frame, the first field of a repeated field progressive frame, the second field of a repeated field progressive frame, and the third field of a repeated field progressive frame.

23. The method of claim 14 additionally comprising buffering in a delay buffer a plurality of frames prior to said forming.

24. The method of claim 23 additionally comprising outputting source information in synchronization with the output of frames from said delay buffer.

25. The method of claim 14 wherein said method is carried out in real time.

26. The method of claim 14 wherein said method is carried out off-line.

27. A computer readable medium carrying a series of instructions which, when executed, perform a method of identifying the source of materials in a video sequence, comprising:

forming a series of pseudo frames from fields in adjacent frames;

calculating a correlation value for each of said pseudo frames;

determining scene changes; and

analyzing said correlation values and said scene changes to identify the source of each frame in said series.

28. The medium of claim 27 wherein said forming a series of pseudo-frames includes interleaving each field with a field from a previous frame.

29. The medium of claim 27 wherein said forming a series of pseudo-frames includes interleaving each field with a previous field.

30. The medium of claim 27 wherein calculating a correlation value includes calculating a sum of absolute values of neighboring line differences according to the following formula:

$$SAD = \sum_{i=0}^{Y-2} \sum_{j=0}^{X-1} | P_{i,j} - P_{i+1,j} |$$

31. The medium of claim 27 wherein said determining scene changes includes comparing a correlation value for one pseudo frame to a correlation value for an adjacent pseudo-frame multiplied by a constant.

32. The medium of claim 31 wherein said adjacent pseudo-frame includes a previous pseudo-frame.

33. The medium of claim 27 wherein said analyzing includes:

selecting a set of correlation values based on whether the frame represents a new scene, a continuation of a scene, or an end of a scene; and

comparing said selected set of correlation values to one another to identify the source of each frame in said series.

34. The medium of claim 33 wherein said identification of the source of each frame includes transitioning a state machine through a series of states based on said comparison.

35. The medium of claim 27 wherein said source information includes one of an interlaced field, the first field of a progressive frame, the second field of a progressive frame, the first field of a repeated field progressive frame, the second field of a repeated field progressive frame, and the third field of a repeated field progressive frame.

36. The medium of claim 27 additionally comprising buffering in a delay buffer a plurality of frames prior to said forming.

37. The medium of claim 36 additionally comprising outputting source information in synchronization with the output of frames from said delay buffer.

38. The medium of claim 27 wherein said method is carried out in real time.

39. The medium of claim 27 wherein said method is carried out off-line.

40. A computer readable medium carrying a series of instructions which, when executed, perform a method of identifying the source of materials in a video sequence, comprising:

forming a series of pseudo frames from fields in adjacent frames;

calculating a correlation value for each of said pseudo frames;

determining scene changes based on said correlation values;

identifying frames and repeated fields based on said correlation values and said scene changes; and

identifying the source of each frame in said series based on said identification of frames and repeated fields.

41. The medium of claim 40 wherein said forming a series of pseudo-frames includes interleaving each field with a field from a previous frame.

42. The medium of claim 40 wherein said forming a series of pseudo-frames includes interleaving each field with a previous field.

43. The medium of claim 40 wherein said calculating a correlation value includes calculating a sum of absolute values of neighboring line differences according to the following formula:

$$SAD = \sum_{i=0}^{Y-2} \sum_{j=0}^{X-1} | P_{i,j} - P_{i+1,j}|$$

44. The medium of claim 40 wherein said determining scene changes includes comparing a correlation value for one pseudo frame to a correlation value for an adjacent pseudo-frame multiplied by a constant.

45. The medium of claim 44 wherein said adjacent pseudo-frame includes a previous pseudo-frame.

46. The medium of claim 40 wherein said identification of frames and repeated fields includes:

selecting a set of correlation values based on whether the frame represents a new scene, a continuation of a scene, or an end of a scene; and

comparing said selected set of correlation values to one another to identify frames and repeated fields.

47. The medium of claim 40 wherein said identification of the source of each frame includes transitioning a state machine through a series of states based on said frames and repeated fields.

48. The medium of claim 40 wherein said source information includes one of an interlaced field, the first field of a progressive frame, the second field of a progressive frame, the first field of a repeated field progressive frame, the second field of a repeated field progressive frame, and the third field of a repeated field progressive frame.

49. The medium of claim 40 additionally comprising buffering in a delay buffer a plurality of frames prior to said forming.

50. The medium of claim 49 additionally comprising outputting source information in synchronization with the output of frames from said delay buffer.

51. The medium of claim 40 wherein said method is carried out in real time.

52. The medium of claim 40 wherein said method is carried out off-line.

53. An apparatus for identifying the source of materials in a video sequence, comprising:

a first circuit for forming a series of pseudo frames from fields in adjacent frames;

a second circuit for calculating a correlation value for each of said pseudo frames;

a third circuit for determining scene changes; and

an analyzer for analyzing said correlation values and said scene changes to identify the source of each frame in said series.

54. The apparatus of claim 53 wherein said first circuit forms a series of pseudo-frames by interleaving each field with a field from a previous frame.

55. The apparatus of claim 53 wherein said first circuit forms a series of pseudo-frames by interleaving each field with a previous field.

56. The apparatus of claim 53 wherein said second circuit calculates a correlation value by calculating a sum of absolute values of neighboring line differences according to the following formula:

$$SAD = \sum_{i=0}^{Y-2} \sum_{j=0}^{X-1} | P_{i,j} - P_{i+1,j} |$$

57. The apparatus of claim 53 wherein said third circuit determines scene changes by comparing a correlation value for one pseudo frame to a correlation value for an adjacent pseudo-frame multiplied by a constant.

58. The apparatus of claim 57 wherein said adjacent pseudo-frame includes a previous pseudo-frame.

59. The apparatus of claim 53 wherein said analyzer:

selects a set of correlation values based on whether the frame represents a new scene, a continuation of a scene, or an end of a scene; and

compares said selected set of correlation values to one another to identify the source of each frame in said series.

60. The apparatus of claim 59 wherein said analyzer includes a state machine for transitioning through a series of states based on said comparison.

61. The apparatus of claim 53 wherein said source information includes one of an interlaced field, the first field of a progressive frame, the second field of a progressive frame, the first field of a repeated field progressive frame, the second field of a repeated field progressive frame, and the third field of a repeated field progressive frame.

62. The apparatus of claim 53 additionally comprising a delay buffer to which said first circuit is responsive.

63. The apparatus of claim 62 wherein said analyzer operates in synchronization with said delay buffer.

64. The apparatus of claim 53 wherein said apparatus operates in real time.

65. The apparatus of claim 53 wherein said apparatus operates off-line.

66. An apparatus for identifying the source of materials in a video sequence, comprising:

a first circuit for forming a series of pseudo frames from fields in adjacent frames;

a second circuit for calculating a correlation value for each of said pseudo frames;

a third circuit for determining scene changes based on said correlation values; and

an analyzer for identifying frames and repeated fields based on said correlation values and said scene changes and for identifying the source of each frame in said series based on said identification of frames and repeated fields.

67. The apparatus of claim 66 wherein said first circuit forms a series of pseudo-frames by interleaving each field with a field from a previous frame.

68. The apparatus of claim 66 wherein said first circuit forms a series of pseudo-frames by interleaving each field with a previous field.

69. The apparatus of claim 66 wherein said second circuit calculates a correlation value by calculating a sum of absolute values of neighboring line differences according to the following formula:

$$SAD = \sum_{i=0}^{Y-2} \sum_{j=0}^{X-1} | P_{i,j} - P_{i+1,j} |$$

70. The apparatus of claim 66 wherein said third circuit determines scene changes by comparing a correlation value for one pseudo frame to a correlation value for an adjacent pseudo-frame multiplied by a constant.

71. The apparatus of claim 70 wherein said adjacent pseudo-frame includes a previous pseudo-frame.

72. The apparatus of claim 66 wherein said analyzer:

selects a set of correlation values based on whether the frame represents a new scene, a continuation of a scene, or an end of a scene; and

compares said selected set of correlation values to one another to identify frames and repeated fields.

73. The apparatus of claim 66 wherein said analyzer includes a state machine for transitioning through a series of states based on said identification of frames and repeated fields.

74. The apparatus of claim 66 wherein said source information includes one of an interlaced field, the first field of a progressive frame, the second field of a progressive frame, the first field of a repeated field progressive frame, the second field of a repeated field progressive frame, and the third field of a repeated field progressive frame.

75. The apparatus of claim 66 additionally comprising a delay buffer to which said first circuit is responsive.

76. The apparatus of claim 75 wherein said analyzer operates in synchronization with said delay buffer.

77. The apparatus of claim 66 wherein said apparatus operates in real time.

78. The apparatus of claim 66 wherein said apparatus operates off-line.